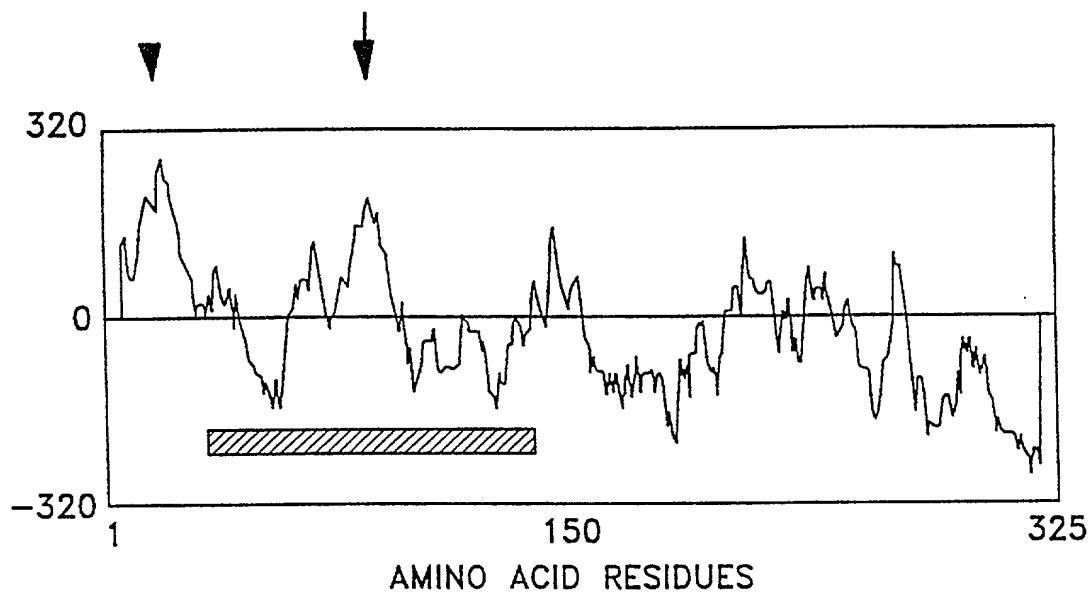


M	V	C	G	S	R	G	M	L	L	P	A	G	L	L	A	L	A	L	C	L	L	R	V	P	G	A	R	A	V	A	C	35
G	A	T	T	C	T	G	C	T	T	G	A	G	T	C	G	A	T	C	G	C	A	T	C	G	A	T	T	G	T	35		
G	A	T	T	C	T	G	C	T	T	G	A	G	T	C	G	A	T	C	G	C	A	T	C	G	A	T	T	G	T	75		
G	A	T	T	C	T	G	C	T	T	G	A	G	T	C	G	A	T	C	G	C	A	T	C	G	A	T	T	G	T	115		
G	A	T	T	C	T	G	C	T	T	G	A	G	T	C	G	A	T	C	G	C	A	T	C	G	A	T	T	G	T	195		
G	A	T	T	C	T	G	C	T	T	G	A	G	T	C	G	A	T	C	G	C	A	T	C	G	A	T	T	G	T	235		
G	A	T	T	C	T	G	C	T	T	G	A	G	T	C	G	A	T	C	G	C	A	T	C	G	A	T	T	G	315			
G	A	T	T	C	T	G	C	T	T	G	A	G	T	C	G	A	T	C	G	C	A	T	C	G	A	T	T	G	325			

FIG. 1

bovine	MVCGSR <u>GGML</u> LLPAGLLALAL ALCLLR <u>VP</u> GA RAAACEPVRI PLCKSLPWNNM	50
human	-----P-----R-----	50
bovine	TKMPNHLHHS TQANAILALE Q <u>FEGLLGTHC</u> SP <u>DLLFFLCA</u> MYAPICTIDF	100
human	-----	100
bovine	QHEPIKPC <u>KS</u> VCERARQGCE PILIKYRH <u>SW</u> PESLACEELP VYDRGVCISP	150
human	-----	150
bovine	EAIVTADGAD FPM <u>DSSNGNC</u> RGASSERCKC KPVRATQKTY FRNNYNYVIR	200
human	-----	200
bovine	AKVKEIKTKC HDVTAVVEVK EILKASLVNI PRETVNLYTS SGCLCPPLNV	250
human	-----S-----D-----	250
bovine	NEEYLI <u>MGYE</u> DEERSRLLLV EGSIAEKW <u>KD</u> RLGKKVKRWD MKLRHLGLNT	300
human	-----I-----	300
bovine	SDSSHSDST <u>Q</u> SQKPG <u>RNSNS</u> RQARN	325
human	-----N-----S-----P-----	325

*FIG. 2A*



N C C P P C CCPP

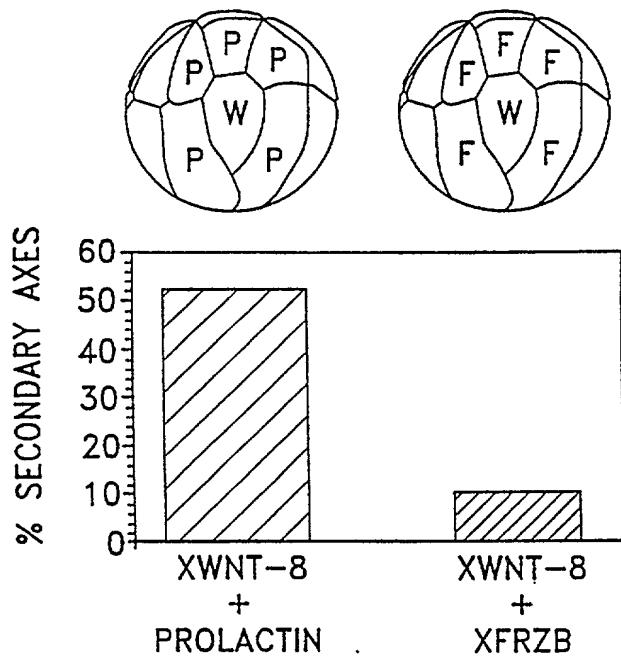
*FIG. 2B*

Rat fz-1	CEPFIISICK	DIAYNQHIMP	MILQHINQED	AGTEVHQFYP	IVKVQCSAET	160
Drosophila frizzled	CEFFVRIICK	NIFYNMTHMP	NLIGHTKQEE	AGLVEHQEAP	IVKIGCSDP	102
bovine frzb	CEFFVRIICK	SIPWNYMKMP	NWTHHSSTQAN	AIIIAIEQFEG	LIGTHCSPD	84
human frzb	CEFFVRIICK	SIPWNYMKMP	NWTHHSSTQAN	AIIIAIEQFEG	LIGTHCSPD	84
	*	*	*	*	*	
Rat fz-1	KEFFLCQMAP	VCTIVLQALP	-PQRSTLCE	A-CCEALMN	EFGFQWFDIL	207
Drosophila frizzled	QIFLCSLIVP	VCTILERPIP	-PQRSTLCE	AR-VCEKLMK	TINENWPEAL	149
bovine frzb	KEFLQMYAP	ICTIDFQHEP	IKPCKSVCE	PROGCEPILLI	KYRHSHNPESL	134
human frzb	KEFLQMYAP	ICTIDFQHEP	IKPCKSVCE	PROGCEPILLI	KYRHSHNPESL	134
	*	*	*	*	*	
Rat fz-1	KCEKEFPVHCR	GEUC				
Drosophila frizzled	EDSKFPVHGG	EDLC				
bovine frzb	ACEELPVYDR	G-VC				
human frzb	ACEELPVYDR	G-VC				
	*	*	*	*	*	

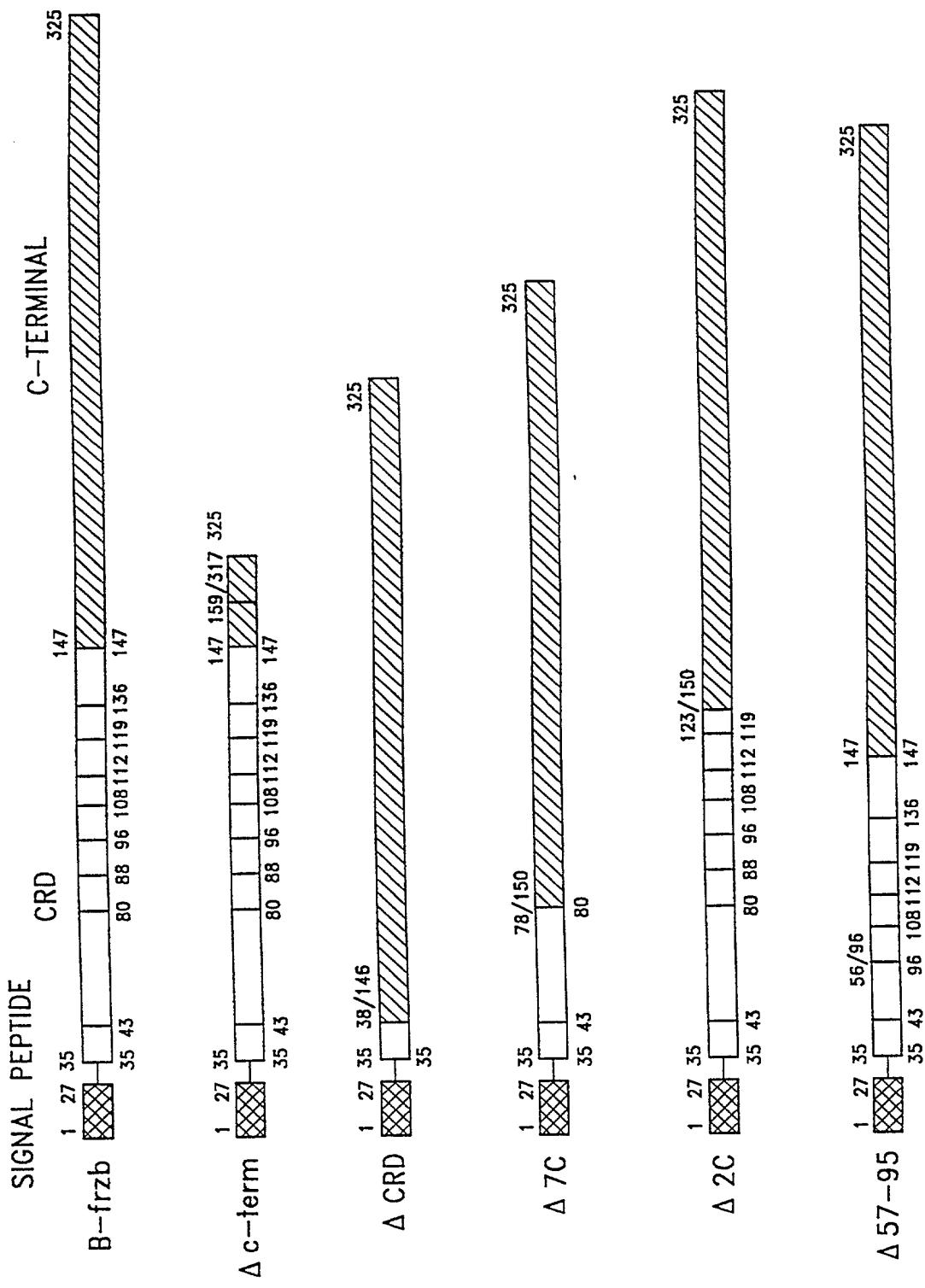
*FIG. 3*

	xFrzb	bFrzb	hFrzb	Consensus	xFrzb	bFrzb	hFrzb	Consensus	xFrzb	bFrzb	hFrzb	Consensus	xFrzb	bFrzb	hFrzb	Consensus	xFrzb	bFrzb	hFrzb	Consensus
MSPTRKLDSF	Q----LIVIP GIVMLILFNA	Q----LIVIP GIVMLILFNA	Q----LIVIP GIVMLILFNA	Q----LIVIP GIVMLILFNA	YCAASCEPVRI	YCAASCEPVRI	YCAASCEPVRI	YCAASCEPVRI	PMCKSIPNM	PMCKSIPNM	PMCKSIPNM	PMCKSIPNM	46							
MVCGSRGGML	LLPAGLILALA ALOLIRVECA	LLPAGLILALA ALOLIRVECA	LLPAGLILALA ALOLIRVECA	LLPAGLILALA ALOLIRVECA	RAAAACEPVRI	RAAAACEPVRI	RAAAACEPVRI	RAAAACEPVRI	PLCKSIPNM	PLCKSIPNM	PLCKSIPNM	PLCKSIPNM	50							
MVCGSPGGML	LLRAGLILALA ALOLIRVECA	LLRAGLILALA ALOLIRVECA	LLRAGLILALA ALOLIRVECA	LLRAGLILALA ALOLIRVECA	RAAAACEPVRI	RAAAACEPVRI	RAAAACEPVRI	RAAAACEPVRI	PLCKSIPNM	PLCKSIPNM	PLCKSIPNM	PLCKSIPNM	50							
MVCGS . GGML	LL . AGLLALA ALOLIRVECA	RAAAACEPVRI	RAAAACEPVRI	RAAAACEPVRI	RAAAACEPVRI	PLCKSIPNM	PLCKSIPNM	PLCKSIPNM	PLCKSIPNM	50										
TKMPNHLHHS	TOANAILIAAE QFEGLIGIHC	TOANAILIAAE QFEGLIGIHC	TOANAILIAAE QFEGLIGIHC	TOANAILIAAE QFEGLIGIHC	SDLILFFLCA	SDLILFFLCA	SDLILFFLCA	SDLILFFLCA	MYAPICTIDE	MYAPICTIDE	MYAPICTIDE	MYAPICTIDE	96							
TKMPNHLHHS	TOANAILIAAE QFEGLIGIHC	TOANAILIAAE QFEGLIGIHC	TOANAILIAAE QFEGLIGIHC	TOANAILIAAE QFEGLIGIHC	SDLILFFLCA	SDLILFFLCA	SDLILFFLCA	SDLILFFLCA	MYAPICTIDE	MYAPICTIDE	MYAPICTIDE	MYAPICTIDE	100							
TKMPNHLHHS	TOANAILIAAE QFEGLIGIHC	TOANAILIAAE QFEGLIGIHC	TOANAILIAAE QFEGLIGIHC	TOANAILIAAE QFEGLIGIHC	SDLILFFLCA	SDLILFFLCA	SDLILFFLCA	SDLILFFLCA	MYAPICTIDE	MYAPICTIDE	MYAPICTIDE	MYAPICTIDE	100							
TKMPNHLHHS	TOANAILIAAE QFEGLIGIHC	TOANAILIAAE QFEGLIGIHC	TOANAILIAAE QFEGLIGIHC	TOANAILIAAE QFEGLIGIHC	SDLILFFLCA	SDLILFFLCA	SDLILFFLCA	SDLILFFLCA	MYAPICTIDE	MYAPICTIDE	MYAPICTIDE	MYAPICTIDE	100							
QHEPIKPKCS	VCEVARQCE PILIKYRHSW	VCEVARQCE PILIKYRHSW	VCEVARQCE PILIKYRHSW	VCEVARQCE PILIKYRHSW	PESLACEELP	PESLACEELP	PESLACEELP	PESLACEELP	VYDRGVCISP	VYDRGVCISP	VYDRGVCISP	VYDRGVCISP	146							
QHEPIKPKCS	VCEVARQCE PILIKYRHSW	VCEVARQCE PILIKYRHSW	VCEVARQCE PILIKYRHSW	VCEVARQCE PILIKYRHSW	ERICKCKPURA	ERICKCKPURA	ERICKCKPURA	ERICKCKPURA	SOKTYLKNNY	SOKTYLKNNY	SOKTYLKNNY	SOKTYLKNNY	146							
QHEPIKPKCS	VCEVARQCE PILIKYRHSW	VCEVARQCE PILIKYRHSW	VCEVARQCE PILIKYRHSW	VCEVARQCE PILIKYRHSW	ERICKCKPURA	ERICKCKPURA	ERICKCKPURA	ERICKCKPURA	TOKYIYFRNNY	TOKYIYFRNNY	TOKYIYFRNNY	TOKYIYFRNNY	150							
QHEPIKPKCS	VCEVARQCE PILIKYRHSW	VCEVARQCE PILIKYRHSW	VCEVARQCE PILIKYRHSW	VCEVARQCE PILIKYRHSW	ERICKCKPURA	ERICKCKPURA	ERICKCKPURA	ERICKCKPURA	TOKYIYFRNNY	TOKYIYFRNNY	TOKYIYFRNNY	TOKYIYFRNNY	150							
AEIVTVEQST	DSMPDFMDSD	NGNGNGSTAG	ERICKCKPURA	ERICKCKPURA	SLVNTHKDTV	SLVNTHKDTV	SLVNTHKDTV	SLVNTHKDTV	ILYTNSSGCLC	ILYTNSSGCLC	ILYTNSSGCLC	ILYTNSSGCLC	196							
EAIVTAD-S	--ADFRMDSD	SINGNCRGASS	ERICKCKPURA	ERICKCKPURA	SLVNTHRETV	SLVNTHRETV	SLVNTHRETV	SLVNTHRETV	NLYTSSGCLC	NLYTSSGCLC	NLYTSSGCLC	NLYTSSGCLC	195							
EAIVTAD-S	--ADFPMDSD	SINGNCRGASS	ERICKCKPURA	ERICKCKPURA	SLVNTHDTV	SLVNTHDTV	SLVNTHDTV	SLVNTHDTV	NLYTSSGCLC	NLYTSSGCLC	NLYTSSGCLC	NLYTSSGCLC	195							
EAIVTAD-S	--ADEFMDSD	SINGNCRGASS	ERICKCKPURA	ERICKCKPURA	RA	RA	RA	RA	TOKYIYFRNNY	TOKYIYFRNNY	TOKYIYFRNNY	TOKYIYFRNNY	200							
NYVIRAKVKE	VRVKCHIDATA	IVVEKEILRS	IVVEKEILRS	IVVEKEILRS	SLVNTHKDTV	SLVNTHKDTV	SLVNTHKDTV	SLVNTHKDTV	ILYTNSSGCLC	ILYTNSSGCLC	ILYTNSSGCLC	ILYTNSSGCLC	246							
NYVIRAKVKE	TIKIKCHDVIAT	IVVEKEILRS	IVVEKEILRS	IVVEKEILRS	SLVNTHRETV	SLVNTHRETV	SLVNTHRETV	SLVNTHRETV	NLYTSSGCLC	NLYTSSGCLC	NLYTSSGCLC	NLYTSSGCLC	245							
NYVIRAKVKE	TIKIKCHDVIAT	IVVEKEILRS	IVVEKEILRS	IVVEKEILRS	SLVNTHDTV	SLVNTHDTV	SLVNTHDTV	SLVNTHDTV	NLYTSSGCLC	NLYTSSGCLC	NLYTSSGCLC	NLYTSSGCLC	245							
NYVIRAKVKE	TIKIKCHDVIAT	IVVEKEILRS	IVVEKEILRS	IVVEKEILRS	SLVNTHDTV	SLVNTHDTV	SLVNTHDTV	SLVNTHDTV	NLYTSSGCLC	NLYTSSGCLC	NLYTSSGCLC	NLYTSSGCLC	250							
PPIVNEEYI	IMGYEDEERS	RULLVEGSTIA	EKWDRIIACK	EKWDRIIACK	VKRWDMKLRR	VKRWDMKLRR	VKRWDMKLRR	VKRWDMKLRR	296											
PPIVNEEYI	IMGYEDEERS	RULLVEGSTIA	EKWDRIIACK	EKWDRIIACK	VKRWDMKLRR	VKRWDMKLRR	VKRWDMKLRR	VKRWDMKLRR	295											
PPIVNEEYI	IMGYEDEERS	RULLVEGSTIA	EKWDRIIACK	EKWDRIIACK	VKRWDMKLRR	VKRWDMKLRR	VKRWDMKLRR	VKRWDMKLRR	295											
PPIVNEEYI	IMGYEDEERS	RULLVEGSTIA	EKWDRIIACK	EKWDRIIACK	VKRWDMKLRR	VKRWDMKLRR	VKRWDMKLRR	VKRWDMKLRR	300											
SKDPVAPIPN	KNNSNSROARS																			
SDSTQSQQPG	RNSNSNSROARN																			
SKSTQSQSG	RNSNSNSPQARN																			
SDSTQSQQPG	RNSNSNSPQARN																			
IGL . . SDSS.	IGL . . SDSS.																			

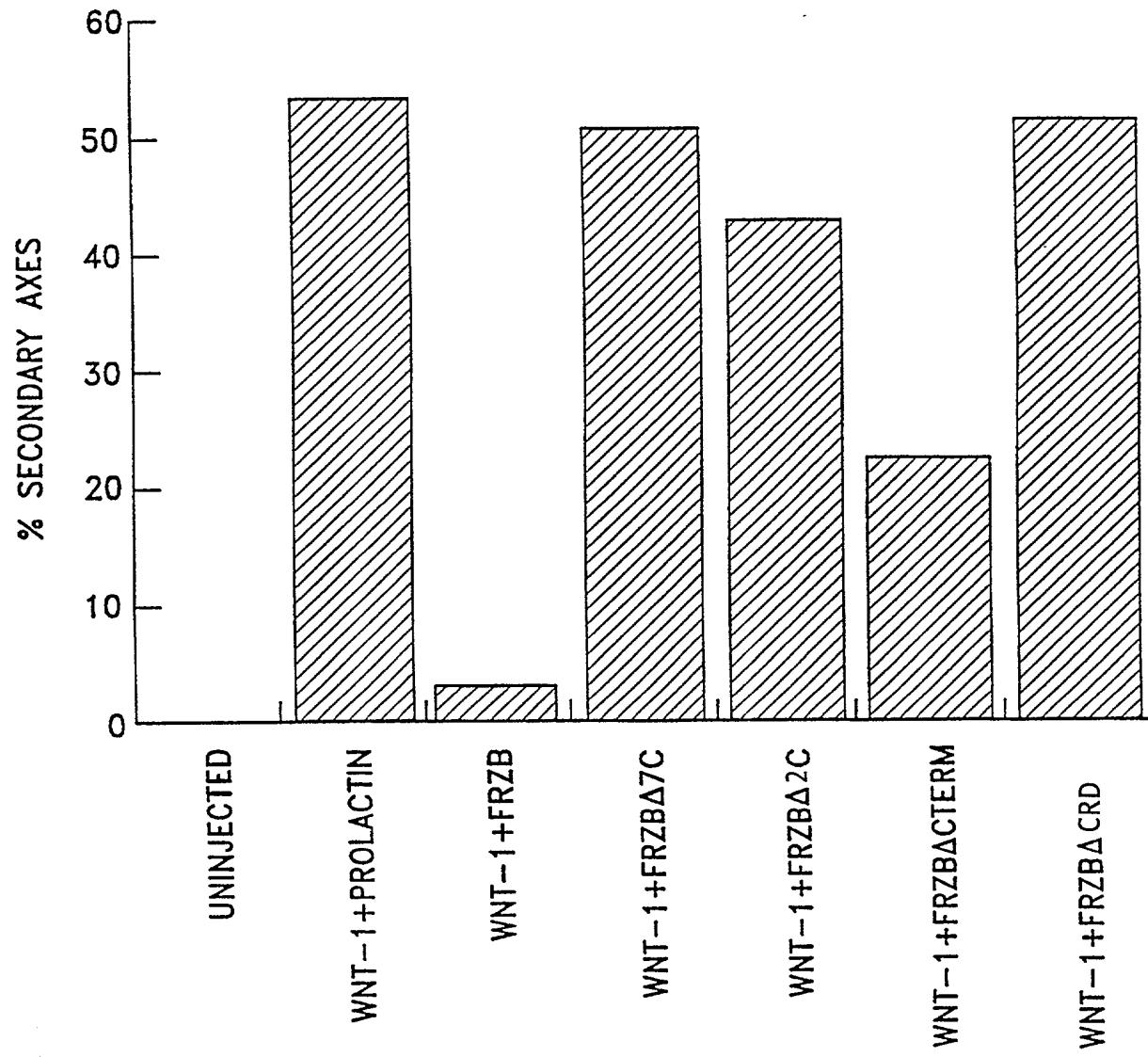
FIG. 4



*FIG.5*



**FIG. 6**



*FIG. 7*